

**AMENDMENTS TO THE CLAIMS**

Please amend the claims as follows.

1. (Currently Amended) A system comprising:

a plurality of nodes ~~a first node and a second node~~ located in a single multiprocessor system; and

a mesh interconnect connecting the plurality of nodes,

wherein a [[the]] first node ~~comprising~~ selected from the plurality of nodes comprises a first router for interfacing with the plurality of nodes using the mesh interconnect and a first replicated service executing on a first operating system[[:]],

wherein a [[the]] second node selected from the plurality of nodes comprises ~~comprising~~ a second router for interfacing with the plurality of nodes using the mesh interconnect and a second replicated service executing on a second operating system[[:]], and

wherein the first node is configured to:

generate a request to replace the first replicated service when the first replicated service is unavailable,

send the request to the plurality of nodes using the mesh interconnect,

receive a response from the second node indicating that the second replicated service is available, and

route a request for the first replicated service to the second node based on the response.

~~a mesh interconnect connecting the first node to the second node using the first router and the second router.~~

2. (Cancelled)

3. (Currently Amended) The system of claim 1, ~~further comprising wherein the second node comprises a second cache operatively connected to a second node configured to indicate indicating that the presence of the second replicated service is available, and wherein the second node is configured to generate the response based on the cache.~~

4. (Original) The system of claim 1, wherein the first router comprises a lightweight communications protocol.
5. (Currently Amended) The system of claim 1, wherein the ~~first~~ second router comprises a ~~lightweight~~ heavy-weight communications protocol.
6. (Original) The system of claim 1, wherein the mesh interconnect provides at least two connection paths from the first node to the second node.
7. (Currently Amended) The system of claim 1, wherein the first replicated service ~~comprises a first~~ is a different application than the second replicated service.
- 8-9. (Cancelled)
10. (Currently Amended) The system of claim [[9]] 1, wherein the first node is configured to ~~search for the second replicated service~~ send the first request using at least one selected from [[the]] a group consisting of a broadcast message and a multicast message.
- 11-14. (Cancelled)
15. (Original) The system of claim 1, wherein the first router and the second router implement a master-less routing policy.
- 16-25. (Cancelled)
26. (New) The system of claim 3, wherein the cache comprises a table having entries for each replicated service provided by the second node.
27. (New) The system of claim 1, wherein the first replicated service is unavailable when the first replicated service is busy.
28. (New) The system of claim 1, wherein the first replicated service is unavailable when the first replicated service has failed.
29. (New) The system of claim 28, wherein the first replicated service has failed due to a virus, and wherein the second replicated service is not vulnerable to the virus.

30. (New) The system of claim 28, wherein the first replicated service has failed due to a security hole being exploited by a hacker, and wherein the second replicated service does not include the security hole.
31. (New) The system of claim 1, wherein the first operating system is different than the second operating system.
32. (New) The system of claim 1, wherein the plurality of nodes comprises a first subset of nodes and a second subset of nodes, wherein the first node is in the first subset and the second node is in the second subset, and wherein the first node is configured to send the request to the second subset only when the first subset does not provide a replacement for the first replicated service.
33. (New) A method for managing replicated services, comprising:
- generating, by a first node selected from a plurality of nodes, a request to replace a first replicated service of the first node when the first replicated service is unavailable, wherein the plurality of nodes is located in a single multiprocessor system and connected using a mesh interconnect;
  - sending, by the first node, the request to the plurality of nodes using the mesh interconnect;
  - receiving, from a second node selected from the plurality of nodes, a response indicating that a second replicated service of the second node is available; and
  - routing, by the first node, a request for the first replicated service to the second node based on the response.
34. (New) The method of claim 33, wherein the plurality of nodes comprises a first subset of nodes and a second subset of nodes, wherein the first node is in the first subset and the second node is in the second subset, and where sending the request to the plurality of nodes comprises:
- sending the request to the first subset of nodes; and
  - sending the request to the second subset of nodes when the first subset of nodes does not provide a replacement for the first replicated service.